

Statistical Analysis. Clinical variables were compared between the genotype groups by analysis of covariance to adjust for confounding factors. For the comparisons we made reference, heterozygote and homozygote groups for each of the COLIA1 and VDR alleles. For COLIA1 the groups comprised the GG genotype group for the reference group, GT for the heterozygote risk group and TT for the homozygote risk group. For VDR haplotype 1 the groups comprised genotypes 22, 23, and 33 for the reference group, genotypes 12, and 13 for the heterozygote risk group, and genotype 11 for the homozygote risk group. The Chi-squared test was used to test for genotype distribution in women with and without fractures. Odds ratios (with 95 percent confidence interval) were calculated by multivariate logistic regression analysis to estimate the relative risk of osteoporotic fracture by genotype. For regression analysis using combinations of VDR and COLIA1 genotype we defined the "reference" group to include women with the COLIA1 GG genotype in combination with the VDR 22, or 23 or 33 genotype. The regression analysis included an interaction term defined as VDR genotype multiplied with COLIA1 genotype. All p-values for statistical tests were two-sided.

In the Claims:

Please cancel Claims 1, 3, 26, 27, and 29, and amend Claims 2, 4, 6, 9, 11, 13, 15, 19, 23, and 25. All pending claims as thusly amended follow:

2. (Twice Amended) A method of determining susceptibility to bone fracture in a subject said method comprising analyzing genetic material of a subject to determine the presence of the baT haplotype of the vitamin D receptor gene, wherein the presence of the baT haplotype is indicative of an increased susceptibility to bone fracture.

4. (Twice Amended) A method of determining susceptibility to bone fracture according to claim 2 said method further comprising determining the presence of a G to T

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